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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/851,937

05/10/2001

Akira Harada

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12/16/2003

FITZPATRICK CELLA HARPER & SCINTO
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EXAMINER

SCHWARTZ, JORDAN MARC

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,937

Applicant(s)

HARADA, AKIRA

Examiner

Jordan M. Schwartz

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) 5-50 and 52-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claim 2 is objected to because of the following informalities: in line 2, "said plurality of lenses is arranged" should be corrected to "said plurality of lenses are arranged" to be grammatically correct. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Negishi et al patent number 5,871,266.

Negishi discloses the limitations therein including the following: an imaging lens system (abstract re "creating a secondary image on a screen") comprising a plurality of lenses (Figures 3 and 4); a stop (Figure 3, column 16, line 66); a diffractive surface (column 25, line 53); the whole or part of the imaging system moving during focusing (column 39, lines 53-65); the lens system satisfying the

condition of claim 1 (column 17, line 48). It is believed that the lens system of Negishi will inherently satisfy the condition of claim 4, this being reasonably based upon the large range claimed (greater than 1), based upon what is disclosed in the embodiments, and based upon the similarity in structure between the optical system of Negishi and that of the claimed invention. In reference to claim 51, an imaging projection lens system will inherently be housed in a housing to hold the lens system.

Claims 1, 4 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki document number 2003/0021031.

Suzuki discloses the limitations therein including the following: an imaging lens system (Figure 1, paragraph 0006 re the entire photo-taking lens system and a photo-taking lens system will inherently be an "imaging lens") comprising a plurality of lenses (Figure 1); a stop (Figure 1); a diffractive surface (paragraph 0123); the whole or part of the imaging system moving during focusing (paragraph 0059); the lens system satisfying the condition of claim 1 (paragraph 0201). It is believed that the lens system of Suzuki will inherently satisfy the condition of claim 4, this being reasonably based upon the large range claimed (greater than 1), based upon what is disclosed in the embodiments, and based upon the similarity in structure between the optical system of Suzuki and that of the claimed invention. In reference to claim 51, an imaging lens system will inherently be housed in a housing to hold the lens system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno patent number 5,067,803 in view of Nakai document number 2001/0015848.

Ohno discloses the limitations therein including the following: an imaging lens system (column 1, lines 6-9, column 3, line 10) comprising a plurality of lenses (Figure 1, column 2, line 66 to column 3, line 5); a stop (Figure 1, column 3, line 8). The lens system of Ohno will inherently move a whole or part of the system for focusing, this being reasonably based upon Ohno disclosing the system as a photographic lens system (abstract). Furthermore, Ohno discloses the lens system producing enlargement images (column 1, line 25 and column 2, line 20). Enlargement images will inherently have an imaging magnification greater than 1 and therefore will inherently satisfy the claimed condition of claim 1. Ohno discloses as is set forth above but does not specifically disclose a diffractive surface within the lens system. However, Ohno discloses the use of aspherical surfaces within the lens system to reduce aberrations within the system (column 4, lines 3-15). Nakai teaches that an optical system can use either aspherical surfaces or diffractive surfaces for the purpose of providing aberration correction within the system (paragraph 0008). Therefore, it would

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have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lens system of Ohno as comprising a diffractive surface, since Ohno discloses the system comprising an aspherical surface to provide aberration correction and Nakai teaches that an optical system can use either an aspherical surface or diffractive surface for the purpose of providing the required aberration correction within the system. Ohno further discloses the plurality of lenses arranged symmetric with respect to the stop (Figure 1). In reference to claim 51, an imaging photographic lens system will inherently be housed in a housing to hold the lens system.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki or Negishi in view of Bietry.

Suzuki and Negishi disclose as is set forth above but do not specifically disclose the diffractive surface as set forth in the equation of claim 3. Bietry teaches that in an optical system having a diffractive surface, the diffractive surface can be formed to comply with the equation of claim 3 to provide a diffractive surface that provides the required aberration correction (column 6, lines 20-47). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the diffractive surfaces of either Suzuki or Negishi as complying with the condition of claim 3, since Bietry teaches that in an optical system having a diffractive surface, the diffractive surface can be formed to comply with the equation of claim 3 to provide a diffractive surface that provides the required aberration correction.

Examiner's Comments

Kawasaki et al publication number 2001/0003490 is being cited herein to show an imaging optical system that would at least read on claims 1 and 51, however such rejections would have been repetitive (see paragraph 0020 re an imaging system, Figure 16 re the lenses and stop, paragraph 0274 re the diffractive lens surface, paragraph 0184 re the focusing, and Table 1-4 re satisfaction of the condition of claim 1). Broome patent number 5,444,569 would also read on at least claims 1 and 51, however, such rejections would have been repetitive.

Response to Arguments

Applicant's arguments with respect to the above rejected claims have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments with respect to the cited art have also been considered. With respect to Suzuki, applicant argues that Suzuki discloses an afocal system, which has no imaging function. The examiner disagrees. While the telephoto converter itself is an afocal system, the entire system which contains the telephoto converter system is an imaging system as set forth in the rejection above and furthermore, as a telephoto lens system it discloses an increase in the imaging magnification. In reference to Ohno, applicant argues that the enlargement prints do not describe or suggest the claimed imaging magnification. The examiner disagrees. Applicant is merely claiming an imaging magnification greater than 0.5. Therefore, an enlargement print will inherently have an imaging magnification greater than 1 and therefore will inherently satisfy the claimed condition. In reference to Broome, applicant argues that Broome discloses a

Galilean telescope, which does not have an imaging function. However, applicant is not claiming that the system forms real images. Therefore, the virtual images formed by the telescope of Broome would qualify the system as "an imaging system" as claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (703) 308-1286. The examiner can normally be reached on Monday to Friday (8:00-5:30), alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached at (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'JMS', is positioned above the printed name of the examiner.

Jordan M. Schwartz
Primary Examiner
Art Unit 2873
December 5, 2003